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INFORMATION TECHNOLOGY

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— COMMONWEALTH 2000 —

PLANNING FOR THE FUTURE OF INFORMATION TECHNOLOGY

Agency budgets and spending plans are created on desktop computers, electronically transferred, reviewed, revised and never printed until finalized. Information is available on-line regarding proposed legislation, supplemental bills, hearing schedules, directories of elected officials and state agencies, budget plans and spending statistics.

Information is available any time, not only to public officials, but to the public and businesses through a commercial bulletin board service or the Internet, or to anyone in the world with a telephone and a computer accessed through the Massachusetts Access to Government Network (MAGNet), the state's information superhighway.

Welfare checks and food stamp coupons are replaced by electronic benefit transfers (EBT) using smart cards at point of sale terminals or through ATM machines, verified by fingerprint scanning.

An integrated criminal and legal justice information system allows agencies, courts and law enforcement groups to electronically share critical data such as warrants, records, images of fingerprints, photos and other information. Prospective parents may view information including photo images of children up for adoption on personal computers in libraries, or at home over cable television.

Information kiosks located in state office buildings, city and town halls, shopping malls and other public areas throughout the state allow citizens to renew car registrations, obtain job listings, pay parking tickets and licensing fees, register to vote, obtain marriage, birth, death certificates and other legal documents, apply for social service benefits, reserve campground space, one stop shop for business permits, pay taxes or anonymously answer state surveys, 24 hours a day, seven days a week.

Those are but a few of the visionary goals laid out in Commonwealth 2000, a Strategic Plan for Information

Technology. It may sound aggressive, but it is both a fascinating and realistic vision whose time has come. With this underlying vision in mind, the objective of this strategic plan is to lay the foundation necessary to ensure that IT initiatives are based upon a comprehensive, coordinated and integrated road map to the 21st century.

Over one year ago, the first draft of Commonwealth 2000 was completed and in July each of the participants at the IT Summit (see related article on Page 2) received a copy to review. Today, Commonwealth 2000 is still a draft document as we await input from each of the secretariats, the constitutional offices and the judiciary — all of which will have input to the plan and the drafting of the "final" copy.

While Commonwealth 2000 was originally developed by the Office of Management Information Systems (OMIS), the end document will be developed utilizing the input of numerous departments throughout state, local and federal government, authorities and private sector firms, to name a few.

There has been, and will continue to be a need to use Information Technology by government entities to assist them in achieving their business objectives. Commonwealth 2000 is being developed in an effort to position us to take full advantage of the technology available today with an eye on the future.

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IT SUMMIT LOOKS TO THE FUTURE

Sharing information, the accessibility of data, and the need to ensure that automation is coordinated on a statewide basis were the themes coming out of the Information Technology Summit organized and hosted by OMIS at Babson College this past July.

Participants at the Summit, who were invited to attend by Governor William Weld, represented all eleven secretariats, three state wide constitutional offices and the judiciary. This gathering grew as a result of the need to formulate a comprehensive and consistent state wide strategic plan and was the first time that all of these groups were together at a single technology meeting.

Participants quickly discovered that there was a large area of common need among departments. Some of the areas were obvious and some were not. Throughout the Summit, participants continually found common areas that would make their organizations more effective if data were shared.

There were a number of IT vendors that participated on a pro-bono basis, including Andersen Consulting, who won a competitive bid to act as Summit Facilitator; I-Net Inc. supplied laptop PCs and a wireless network demo; Microsoft Inc. supplied software and consulting services; Lotus Corp. supplied software, including a Lotus Notes application to administer the IT plans; BANYAN supplied an E-Mail server connected to the

Wide Area Network; Softouch InfoCenters, Inc. provided a kiosk for check-in and Summit information; and US Telecenters and NYNEX provided a demonstration of videoconferencing.

During the session, participants used laptop computers to share examples of technology that would help them achieve their goals. Some of the more

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popular suggestions included the use of kiosks and the accessibility of data.

Participants at the conference also received the benefit of advice from some distinguished technology and management experts who shared examples of what has been successful in other parts of the country. Included in that group were technology representatives from other states' government agencies who spoke on their experiences relative to the information highway, information sharing and technology implementation: Sally Anderson, Deputy Commissioner, Management and Support, Texas Mental Health and Retardation Department; Tom Carroll,

Project Director, Department of Labor and Industries, State of Washington; and Dennis Perry, Director, Education User Support, North Carolina Information Highway.

Speakers from the private sector and academia included: Ted Gaebler from the Gaebler Group on the role of technology in reinventing government; Tim Short and Dr. Anatole Gershman from Andersen Consulting on team building and the future of information technology; Ben Miller, publisher of *Personal Identification News*, on SmartCard Technology; and Dr. Jerry Mechling, from the Kennedy School of Government on re-engineering state government.

Strategic Planning's Director, Jim Bradford said the Summit meeting was successful "beyond my expectations." He stated the next step is to develop and publish organizational wide strategic plans. "Each entity will now move to develop their strategic plans — understanding the need for information sharing," said Bradford.

Massachusetts Chief Information Officer John Thomas Flynn assessed the impact of bringing various parts of state government together at the Summit in the October 1994 issue of *Government Technology Magazine* by saying these types of activities will help "ensure that the systems they develop to satisfy their business objectives take into account the nature of the other business in the state."

IT BOND I UPDATE

House Bill #6073, "An Act Relative to Providing Capital Outlays for the Acquisition and Upgrading of Major Information Technology Systems," was enacted September 24, 1992. This act provided funds to automate many areas of state government operations. Projects range from automating the offices of the District Attorneys to a complete re-design of the Commonwealth's electronic ledger and accounting system. The following is an update to some of the projects funded in IT Bond I; other projects will be highlighted in future issues:

Budget Automation

This project aims to upgrade computer hardware and software available to the Budget Bureau and key agency financial staff in order to improve the budgeting process. The project will improve PC hardware and software available to agency budget preparation, improve the Budget Bureau's FAD/LAN, and improve fiscal data storage and reporting technologies. The project has automated through linked Excel worksheets the quarterly and annual spending plan activity.

Human Resources/Compensation Management System (HR/CMS)

The compensation management system will provide an enterprise wide human resource information and payroll system for the Commonwealth. It will replace islands of automation — the existing legacy systems PMIS, CAPS, MAGIC — with a single, integrated system. HR/CMS will be developed with proven client/server technology, conforming to GACIT (Governor's Advisory Committee on Information Technology) standards. An RFP was released in September 1994 and proposals were received in January

1995; the evaluation of the vendor responses is currently underway.

Billing and Accounts Receivable System (BARS)

BARS is an automated billing and accounts receivable subsystem of the state's accounting system for non-tax revenue. Phase I of BARS, completed in FY92, restructured the Commonwealth's revenue management system. Phase II automates the billing process and provides collection services. The BARS system will dramatically enhance the Commonwealth's electronic method for managing receivables.

ReEngineering MMARS (ReMMARS)

ReMMARS is divided into 2 initiatives: ReMMARS and MMARSTech. The ReMMARS portion includes a complete reengineering of the Commonwealth's disbursement practices. ReMMARS will enhance the Commonwealth's ability to do accurate cash-flow analysis, yield accurate payee data, and maximize interest earnings. The MMARSTech initiative will introduce the use of advanced enabling technologies that will improve management efficiencies and prepare the Commonwealth to migrate to state-of-the-art system architecture.

Cash Management System

This project, which enhances the new interface between the State Treasury and the state accounting systems, MMARS, involves three initiatives: 1) Completion of a centralized federal draw bringing the state into compliance with the new Cash Management Improvement Act's strict tracking and reporting of federal funds for certain grant programs; 2) support the Treasurer's Cash Management and Banking Reform initiative and add a central remittance function,

which streamlines the collection of cash in the Commonwealth; and 3) create a debt system to improve and control items for the debt management function. The project is essentially complete for items 1 and 2 with all of the aforementioned capabilities in place. Currently, the project is undergoing statewide rollout. Item 3 was purchased from a vendor at the end of last year.

Local and Wide Area Networks (LAN/WAN)

The use of PCs connected to local area networks is being extended to those departments not now able to communicate over the networks. The wide area network will connect the smaller LANs to one another. In FY93, there were 6,000 state employees with the ability to communicate and share information. This trend will continue to accelerate, due to increased agency interest in participating in the WAN and the fallout of WAN-based IT Bond applications, from the Comptrollers, Department of Personnel Administration and Budget Bureau, in particular. The number will grow to 10,000 in 1995, with an estimated goal of 20,000 by 1996, ensuring that every information worker in the Commonwealth who needs access has access.

Massachusetts District Attorneys Association

This project provides all District Attorneys with office automation including voice mail, personal computers, word processing, case tracking, and access to external databases. During FY93, the project implementation plan was developed and procurement of the hardware and office automation software was explored and draft procurement documents written.

In FY94 procurement of hardware, office automation software, and wiring

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ENHANCED ELECTRONIC COMMERCE EMPHASIZED IN 1994 THROUGH MMARS

1994 brought a new emphasis on expanding the use of electronic commerce via MMARS, the Massachusetts Management Accounting and Reporting System. MMARS is the Commonwealth's statewide accounting and purchasing system used by all 158 departments, making it the central hub for much of the financial activity undertaken throughout state government.

Various electronic commerce technologies were identified that would provide significant opportunities for reducing transaction costs, increasing the productivity of office staff, and improving information quality by reducing chances of human error.

A partnership of the Office of the State Comptroller, OMIS and outside vendors are participating in a variety of electronic commerce projects revolving around electronic funds transfer (EFT), electronic benefits transfer (EBT), and electronic data interchange (EDI).

Electronic Funds Transfer

For many years, the Commonwealth has had EFT programs in place for payroll systems and the accounting system, but not for many existing delegated payment systems. During the past year, several enhancements to EFT processing have been implemented. Now all EFT information is centrally entered in MMARS instead of being split with the State Treasurer's payment system. Departments now also have more control in managing data belonging to their vendors.

Efforts to consolidate all Commonwealth payments within MMARS, coupled with marketing activities aimed

at various vendor groups, have already increased the number of payments using EFT. Given that the Commonwealth issues several million payments a year and the cost of processing checks is in the vicinity of \$.25, compared to \$.12 for EFT transmissions, the savings potential is enormous.

Electronic Benefits Transfer

A particularly exciting pilot project has been established by the Office of the State Comptroller and the Welfare Department that distributes benefit payments using electronic benefit transfer to a subset of recipients of the Emergency Aid for the Elderly, Disabled, and Children (EAEDC) program.

A group of clients in the Brockton Welfare office received EBT cards, issued by Deluxe Data Systems (an EBT integrator) and Shawmut Bank, that display the picture of the card owner. These cards act like debit cards and allow users to withdraw money from ATM machines against Commonwealth bank accounts set up for each recipient. EAEDC recipients are also able to use their EBT cards in supermarkets that are network-enabled. This Welfare pilot began on October 1, 1994, and involves over 1,100 recipients.

In addition to the savings from electronic fund transfers, savings have also come from the reduced personnel costs normally assigned to process lost or stolen checks, reissued checks, and returned checks due to address changes. Cash management has also improved since the Commonwealth's funds are drawn down only when cash is actually withdrawn by the card holder.

The Commonwealth's EBT pilot was named a winner of the Better Government Competition sponsored by the Pioneer Institute for Public Policy Research. Ray McCabe, the Comptroller's project manager for this pilot, wrote and presented the winning paper.

Electronic Data Interchange

The third major electronic commerce initiative recently implemented was the integration of EDI and MMARS. The Department of Procurement and General Services played the lead role in this effort.

The Department identified the first EDI trading partner, MacIsaac Office Products and worked closely with them to prepare for the first electronic transmission of a purchase order on October 8, 1994. Since then many purchase orders, receiving documents and vendor invoices have been electronically generated and transmitted between the two partners, via a value added network (VAN). Payment vouchers are also automatically generated if the necessary matches occur between all the components. New on-line order processing linked to vendor catalogs is an additional enhancement to the Extended Purchasing Subsystem of MMARS. PC based EDI mapping and transmission software from Supply Tech, Inc. was selected and successfully implemented.

Phase 2 will soon be implemented to add the three vendors currently on the Commonwealth's PC blanket contract as new trading partners. This will also allow services as well as commodities to be ordered through EDI.

M A G N E T

MASSACHUSETTS ACCESS TO GOVERNMENT NETWORK

The Massachusetts Access to Government Network (MAGNet) is the statewide, high-speed communications infrastructure that is vital to the Commonwealth's business operations and economic health in the 1990's. Originally conceived as a simple telecommunications vehicle to serve the Commonwealth's large Data Centers, MAGNet has evolved conceptually to include not only the 50,000 desktop computers of the Commonwealth's own information workers, but public access from an estimated 2,500 locations in the state's libraries, schools, and town halls; 5,000 domestic customers; a potential 300,000 business clients; and finally, an estimated 2,000 municipal employees in cities, towns and counties.

Not only will MAGNet serve the business of the Commonwealth, it will also connect the Commonwealth's businesses - by fostering private investment in state-of-the-art telecommunications infrastructure - and by harnessing the vision and imagination of Massachusetts high technology development firms in hardware, software, and communications.

Many agency and secretariat personnel have already been introduced to MAGNet. From a technician's viewpoint, MAGNet is the union of the many physical networks in place at the Commonwealth into a logical, integrated whole, in a way that mirrors the Internet model. From a business standpoint, MAGNet is the telecommunications vehicle that will allow statewide managers and planners to communicate electronically with other state agencies, cities and towns, citizens, businesses, and the many folk on the Internet.

Resolving Existing Problems and Constraints

The implementation of MAGNet will help alleviate a number of existing problems. For example, Commonwealth business operations are constrained by the very limited ability of existent networks to communicate with each other. The state's delivery of services is fragmented. Each agency's view of the data resources it can bring to bear on a business problem, be it eligibility determination, or the issuance of a hairdresser's license, is bounded by where their individual networks go, and with whom their (mostly) proprietary technologies allow them to communicate. This means that job-seekers can't query DET's job banks from Massachusetts Rehabilitation Commission offices; DSS case workers aren't always aware that warrants exist on clients; systems that should perform instant eligibility matches among state databases cannot make direct contact with other state agencies' systems; a citizen must communicate a simple name change to multiple state agencies independently, costing the Commonwealth hundreds of dollars in processing costs - and infuriating the customer.

Most agencies who operate telecommunications networks maintain the same costly network operations staff as other agencies; perform the same network management services; do the same tactical and strategic network analysis; contract independently with the same network vendors; and compete for the same Federal grants, sometimes for related projects.

The Commonwealth spends an estimated \$100 million per year on the operations and capital investments related to communications infrastructure. The result has been the fractional development and maintenance of numerous single-purpose, independently designed, and independently managed voice and data communications networks. The waste in redundant equipment, circuitry, personnel, and loss of economies of scale is staggering in and of itself - the general inability of these networks and telephone systems to interoperate is merely the tip of the iceberg.

◆ Benefits of MAGNet ◆

- ◆ The design, establishment, and enforcement of statewide networking standards guarantee the interoperability and efficiency of the network investments to be made by IT Bond I and II projects.
- ◆ The interconnection of the State's information workers, cities, towns, public buildings, and educational institutions into a single, virtual network, leveraging the Commonwealth's existent network investments.
- ◆ The development and deployment of a suite of value-added services to lower the cost and enhance the integration of Commonwealth operations, to include secured Internet administration and access; network management services; mainframe gateway services; Electronic Data Interchange (EDI), Electronic Benefits Transfer (EBT), and Electronic Funds Transfer (EFT) gateways; and interagency information brokerage services.
- ◆ The support of public access applications, deployed to domestic personal computer users, and kiosks, in public buildings and malls. Applications will be as varied as electronic tax filing; automobile registration renewal; electronic benefits/payment transfer, public information dissemination, and many others.
- ◆ A technical assessment of long-term network investment strategies; a detailed analysis of the impact and likely benefits of deregulation, as well as the development of a strategy for negotiating and managing the outcomes of deregulation; an analysis of the options for leveraging the state's rights-of-way in negotiations with carriers; and an analysis of other techniques used by states to encourage private investment in high speed network infrastructure, to benefit the Commonwealth's internal operations, as well as business.

MAJOR SYSTEM IMPLEMENTATIONS UNDERWAY

Trial Courts to be Automated Under Warrant Management System Initiative

The Administrative Office of the Trial Court is implementing a computerized Warrant Management System (WMS) using IT Bond funding. WMS will provide automated support to clerks' offices and others who have responsibility for issuing and managing warrants and will create a central warrant repository that is accessible to court staff and to law enforcement agencies.

Brackett B. Denniston 3d, Governor Weld's Chief Legal Counsel, was quoted in a recent Boston Globe article to the effect that this project, when completed, saying it "will move us from the 17th to the 21st century in warrant technology."

WMS will improve the timeliness, completeness and accuracy of the warrants that the court system issues. It will also make the warrant visible to law enforcement agencies more quickly than the manual, paper bound processes of issuing the warrant, putting the warrant into the hands of the appropriate law enforcement agency and entering the warrant into law enforcement/criminal justice computer systems. Recently enacted legislation to establish electronic warrants as the legal representation of warrants will multiply the benefits of WMS since the central warrant repository created by WMS would be the foundation of electronic warrants.

The initial version of WMS will provide the ability to enter the same information that a clerk's office in the District Court Department or the Boston Municipal Court Department enters on a criminal complaint — the information required for issuance of a warrant. Upon completion of data entry, WMS will print a warrant out on a local printer at the clerk's office. Without need of further intervention from court staff in the clerk's office, WMS will forward the warrant information electronically to a central warrant repository and from that repository, WMS will forward the warrant information to the Criminal History Systems Board (CHSB) which will maintain on its computer systems a copy of the Trial Court's central warrant repository that is accessible to law enforcement agencies. Forwarding warrant information (including not just the creation of a warrant but also updates to a warrant indicating its return or recall) to both the central repository and the CHSB-maintained copy, will take place within a short time of the entry of data in the clerk's office.

WMS uses 23 local servers deployed across the Commonwealth. Each court division connects a local server used to store warrant information for one or a few divisions or departments. Feeder sites, locations which have one or more desktop computers or laser printers, and network hardware and software but no local server will connect to a local server sited at a separate facility. Divisions or departments located in the same facility as a local server will connect to the server by means of a small local area network (LAN) within the facility. Assignment of a division to a particular local server reflected a deliberate effort to balance the work load equally among all servers, to isolate disruptions when a server fails, to provide

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The National Voter Registration Act: The Motor Voter Act in Massachusetts

Registering to vote in Massachusetts is about to become easier. Under the federal National Voter Registration Act, Massachusetts residents must be allowed the opportunity to register to vote when applying for or renewing a driver's license. As an estimated 97% of the Commonwealth's eligible voters will visit a Registry of Motor Vehicles (RMV) office over the next five years, this bill has become known as the "Motor Voter" law. Secretary of State William Galvin's office has been preparing for the enactment of this legislation to allow voter registration not only at the RMV but also at state agencies which provide public assistance. Residents who prefer may still register to vote at their city or town hall.

Via a Request for Proposals process, Massachusetts has selected UniSys as the prime vendor to connect the 351 cities and towns to a state data base known as the Central Voter Registry (CVR). This CVR is a Unisys U6000/500 Model 50 multi-user, multiprocessor system running UNIX System V as the operating system and Oracle 7 as the relational data base management system. Expected to be installed by the third quarter of 1995, this system will allow the collection of data from various voter registration points. The files will be cross-checked to eliminate any duplicate registrations, then sorted and sent to the appropriate city or town. As in the past, cities and towns will be responsible for the accuracy of the voter records.

Currently, 65% of Americans are registered to vote and federal voting analysts are hoping that Motor Voter will push this figure up to 90%. Massachusetts is expected to reflect this national trend.

An additional bonus of this implementation is the installation of PCs, printers and software in many cash strapped city and town halls which should lead to an improved efficiency in day-to-day operations. The addition of PCs will allow many town and city officials to add additional automation in town halls to serve residents more efficiently.

CIO/SIO PROFILE

CIO/SIOs Present Their Visions for the Future

During the summer of 1994, the Commonwealth of Massachusetts named its first Chief Information Officer and Secretariat Information Officers. The following is a profile of the individuals appointed to these positions and an overview of their plans for the future.

John Thomas Flynn Chief Information Officer



John Thomas Flynn was appointed the Director of the Commonwealth of Massachusetts' Office of Management Information Systems in June of 1993 and in July of 1994 was selected by Governor Weld as the state's first Chief Information Officer. As CIO, he is responsible for the state's primary data center and network operations, systems development, and most critically, the Information Technology and Telecommunications (IT/TC) strategic planning for the Commonwealth's approximately \$300 million annual IT/TC investment.

Mr. Flynn is the Eastern Regional Director for the National Association of State Information Resource Executives and NASIRE's liaison to the Federal Benefits Transfer Task Force. This task force was created in 1993 in response to Vice President Gore's National Performance Review which called for a plan to support rapid development of a nationwide system to deliver government benefits electronically.

Prior to joining state government, Mr. Flynn was a principal in a systems development organization primarily responsible for the design and implementation of large financial and statistical applications in the public sector environment.

As CIO, Mr. Flynn stated that his overriding goal for the year is the completion of Wide Area Network (WAN) implementation for all agencies state-wide. He has also set a number of ambitious goals for IT/TC planning, design and implementation in 1995. For example, the Strategic Planning Bureau (SPB) within OMIS will assist in the development of IT strategic plans for each of the secretariats. In addition, Mr. Flynn sees the SPB taking a lead role in restructuring/updating Commonwealth 2000. SPB will also develop blanket purchasing contracts for revenue maximization, videoconferencing, kiosks and telecommunications planning.

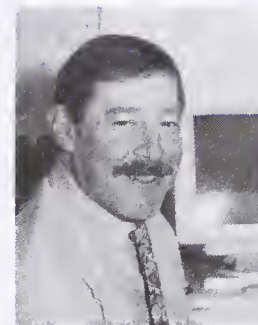
Under the Information Technology Bond, OMIS will continue to oversee the implementation of the 22 projects previously authorized in the IT Bond Bill (see related story). In addition, Mr. Flynn said that IT Bond II legislation will be filed which will provide various secretariats with \$200 million to fund new IT initiatives.

In the area of telecommunications, Mr. Flynn said OMIS will work to consolidate virtual network/long distance telephone service to a prime vendor, gaining significant volume discounts. The office will also recommend consolidation and coordination of the procurement of telecommunications equipment and service for an estimated additional savings of over \$1 million during Fiscal Year 1996.

Finally, Mr. Flynn will also focus his agency on an assessment of the Data Center consolidation Plan recently completed by the Gartner Group. This plan recommended consolidation of several major data centers including OMIS's at the new Massachusetts Information Technology Center in Chelsea, saving approximately \$5 million per year. In addition, OMIS is developing a plan for FY96 which will recommend that OMIS be funded solely through retained revenues — no appropriated funds will be

requested. This Zero Appropriation Plan will allow OMIS to function like a private sector business and create an example of entrepreneurial government services.

John J. Shontell/SIO, Consumer Affairs & Business Regulation



John J. Shontell is the MIS Director and Chief Information Officer for the Executive Office of Consumer Affairs and Business Regulation. Mr. Shontell became the first Secretariat CIO in Massachusetts when he was appointed in 1994.

Prior to joining Consumer Affairs, Mr. Shontell was Data Center Director for the Executive Office of Environmental Affairs. Later as EOE's MIS Director, he worked with agency and Executive Office staff to replace an antiquated IBM mainframe data center with the first Secretariat Wide Area Network in Massachusetts. This project won the Computer World Smithsonian Award and the Urban and Regional Information Systems Association Award for Excellence in State Government.

Mr. Shontell sees the first priority for EOCA being the need to create a common vision within the Secretariat that recognizes information as a shared resource. Future EOCA information systems will be open to share data with one another, other state agencies, public and private databases and most importantly, with the businesses and consumers of Massachusetts. Mr. Shontell said that EOCA is preparing to submit a Secretariat IT Plan to OMIS which embraces these concepts and will identify several technical initiatives that his agency will pursue over the next few months.

The first of Mr. Shontell's initiatives is the creation of a Decision Support System of critical licensing information from all agency licensing systems. This database will provide instantaneous information to the public and agency management.

Second, the decision support system will also support customer inquiries via an interactive voice response system. Information about the status of a license application, renewals, complaint filings and hearing schedules will be provided over the telephone 24 hours a day, seven days a week without the need for staff intervention. Ultimately, this database will be capable of supporting kiosk services and one stop license shopping centers.

Finally, Mr. Shontell sees a need for streamlining licensing and documentation management systems. He said that EOCA agencies currently license over 600,000 businesses and professionals using eight separate antiquated licensing systems. Using imaging and database technologies, there will be a re-engineering of the business processes and integration of the licensing and document management functions. The elimination of repetitive tasks and duplication could reduce processing time by 30%. In addition, the redesigned licensing systems will be linked to other state and national databases to check for complaints before licenses are issued or renewed.

Louis Gutierrez/ SIO, Health & Human Services

Louis Gutierrez is the Director of Information Technology Services at the Executive Office of Health and Human Services. Transferred from the Budget Bureau in September where he was the Assistant Budget Director for Systems,



Mr. Gutierrez is also his agency's designee to the Governor's Advisory Committee on Information Technology (GACIT). Mr. Gutierrez is a

former member of the Massachusetts Public Health Council and has extensive information technology industry experience.

Mr. Gutierrez sees a need for the sharing of data and the compatibility of interagency systems. "We need to strive towards more seamless interoperability in our agencies' processes for delivering health coverage and human services to the citizens of the Commonwealth, particularly children in need," said Mr. Gutierrez.

The SIO stated that information systems fundamentally shape the ability of EOHHS to execute its mission. But he feels that inter-program and information system incompatibilities currently make it difficult to collect and consolidate service delivery and can serve as a barrier to the innovative integration of complementary services.

According to Mr. Gutierrez, one precursor to the goal of agency interoperation is simply reinvigorating healthy interagency discussions of system matters. To that end, a series of EOHHS Senior Systems staff meetings have already begun to discuss IT matters of strategic importance. In addition, he believes that a critical success factor for achieving long-term interoperability will center on the ability to find agreement on consistent data definitions — the ways in which clients, families, providers, geographic areas, etc. are recorded by program systems — for some of the key data elements tracked by EOHHS agency systems. Mr. Gutierrez also said that some form of data warehousing of common or analytic information would be helpful in understanding the outcomes resulting from health and human service activities.

"My objectives are very direct and not very complicated in concept, just in implementation," he said. "Achieving our goals will require a deliberate and dedicated process engaged by EOHHS agencies. It has been a special pleasure to join such capable systems colleagues at EOHHS agencies in undertaking this work."

Commonwealth is ESPRIT Award Winner

The Commonwealth of Massachusetts has been named one of six winners — and the only public sector group — of *CIO Magazine's* second Annual Excellence in Strategic Partnering for Return on Investment for Information Technology (ESPRIT) Awards.

In making its announcement, the magazine said that the award is a recognition that "Information executives have always faced the challenge of justifying the costs of proposed systems. Today they must also prove the strategic value of the new technology. At the same time, CIOs must forge working partnerships between IS and the business units in order to create systems that serve the company as a whole."

The Commonwealth received the award for its Billing and Accounts Receivable Subsystem (BARS) project. BARS was a joint effort between the Office of the Comptroller (OSC), the accounting arm of state government, and OMIS, the technology arm of state government. Using several partnership techniques such as the co-location of business and technical staff, joint project management and shared risk, the BARS project served as a model for future enterprise wide IT developments.

The strategic partnership between OSC and OMIS resulted in a major enhancement to the state wide accounting system. The initial phase of this enhancement was successfully designed, constructed, tested, installed and implemented in a 12 month period. Within six months the project had recovered its initial cost plus increased tax revenue by more than \$17 million.

Congratulations to Susan Kanak and Mary Ann Myers of OSC, Anna dos Santos, Mark Heumann, Judy Kingsley, Bob Ragucci and Debbie Seaward of OMIS, and all others who participated in this project.

STRATEGIC PLANNING

FOR INFORMATION TECHNOLOGY

The Bureau of Information Technology Acquisitions (BITA) tracks over \$200 million in expenditures related to Information Technology each year. In years past, expenditures have been made without a strategic plan at the state level or in some instances, at the department level. In 1993, an externally produced report was commissioned by the Executive Office for Administration and Finance to examine potential improvements in the efficiency and effectiveness of state government.

The resulting study, called the Factor Report, recommended that OMIS devote greater attention to strategic planning for information technology in the future. OMIS Strategic Planning Bureau is currently working with the executive secretariats and the constitutional offices to complete the draft strategic information technology plans begun at the IT Summit in July (see related story). It is expected that these plans will be published in mid 1995.

The Summit provided the kickoff for the planning process for many of the organizations who participated. Each strategic plan will consist of three major sections: a description of the current environment, financially, organizationally and technically; a definition of future direction; and a set of strategies to move from the current situation to future vision.

The effort involved in developing the strategic plans varies between organizations. Some secretariats or constitutional offices have already com-

pleted some IT planning so their efforts might consist of simply re-collating materials from existing documents. Other organizations who have not previously done extensive work in this area are still able to use materials developed for the IT Summit and can also utilize

"OMIS STRATEGIC
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BEGUN AT THE IT
SUMMIT."

other existing materials developed for different purposes. Thus those organizations who are just beginning to develop their plans will have a base from which to work. In addition, while many organizations assign a senior technologist to strategic plan development, a deputy secretary or constitutional officer usually stays involved to insure that the IT direction reflects the organization's business policy direction.

Commonwealth 2000, the state wide strategic information plan described in another article, was one of the inputs into the secretariat-level plans. A revised Commonwealth 2000 will be one of the outcomes resulting from the completion of all of the secretariat-level plans.

Overview - Continued from page 3

took place. All DA's offices are now wired for voice and data. The hardware has been delivered and installed. The development of specifications for the case tracking system is currently underway.

Executive Office of Elder Affairs: HOMIS

The HOMIS project provides IT hardware and software to twenty-seven non-profit home care corporations. Home care providers offer services to low income elder citizens and assure efficient utilization of all resources available to them. Automation will increase the state's ability to receive federal reimbursement and enable the providers to switch to performance based payment. Application development was purchased from a vendor with delivery planned in early 1995.

Department of Mental Health: Client Billing

The Client Billing System is intended to consolidate and replace the existing third party systems of the Department of Mental Health (DMH) using a distributed, client server architecture. The major goals will be to assure continued and timely collection of revenues via the generation of accurate bills, to improve the management of accounts receivable, to maintain cost accounting capabilities, and to eliminate redundancies in data collection procedures. The IT Capital Bond will pay for revenue-generating components of the new Client Billing System.

Department of Public Welfare: BEACON

This system will automate all public assistance programs administered by the Department of Public Welfare. Automation will produce significant savings by reducing errors, increasing worker productivity, improving data integrity, and enhancing interfacing. All requirements and the implementation approval from the Federal Government are in place. An RFP was issued in November 1994, and proposals are due in January 1995.

NEW TECHNOLOGY UPDATE

Kiosks : Helping to Make Government More Accessible

Making government services more open and accessible to citizens is a goal that may now be in closer reach thanks to new interactive technology being introduced in the Commonwealth by OMIS and many other departments, starting with Consumer Affairs, Health & Human Services, Capitol Planning & Operations, the Bureau of State Buildings, and Travel & Tourism.

A Commonwealth kiosk system pilot project will help provide more efficient government information and services to the general public. The kiosks, which bear a slight resemblance to automatic teller machines, will be located at the State House, One Ashburton Place and 100 Cambridge Street during the one year pilot program which began in January. Ultimately, kiosks could be found at other state office buildings, town halls, libraries and shopping malls, dispensing information and providing a number of services such as registering a car, applying for a hunting license or searching for a job.

Vendors for the kiosk pilot program are Unisys and DEC. Each unit will be comprised of a shell, a seventeen inch touch screen monitor, multimedia PC with CDROM, 16 megs of RAM and a gigabyte of storage. When fully operational, the kiosks will be networked to a central location for maintaining information and for real-time on-line transactions.

Kiosks have been used over the last three years as an increasingly accepted vehicle for delivering services. Kiosks allow the user a single point of entry into government services and the potential to deliver one-stop shopping. The majority of services to date have focused on the areas of travel and tourism, employment and vehicle registration. During the first phase of the OMIS pilot the kiosks will be used for informational purposes. For example, citizens will be able to find information on how to obtain a birth certificate or marriage license.

Strategic Planning Bureau Lab

Need to find out the latest on the Windows NT Advanced Server and SQL/Server from performance and data modelling aspects? How about high speed data transfers, installation and configuration? Perhaps you are looking for an evaluation of new software such as Disaster Recovery or Project Management and Application building software using client/server technology.

Strategic Planning's Lab can provide all of these services and more. It was established to provide software testing and evaluation services for interested Commonwealth departments.

The lab began operating over the summer and is the brainchild of Chief Information Officer John Thomas Flynn, who saw the need to establish an evaluation and testing mechanism within the Strategic Planning Bureau. The lab also provides summer internship candidates with hands on experience using the latest client/server technology. For more information about the Lab, call Roy Bean at (617) 973-0805 or Jerry Shereda at (617) 973-0814.

Videoconferencing Picture Becomes Clearer

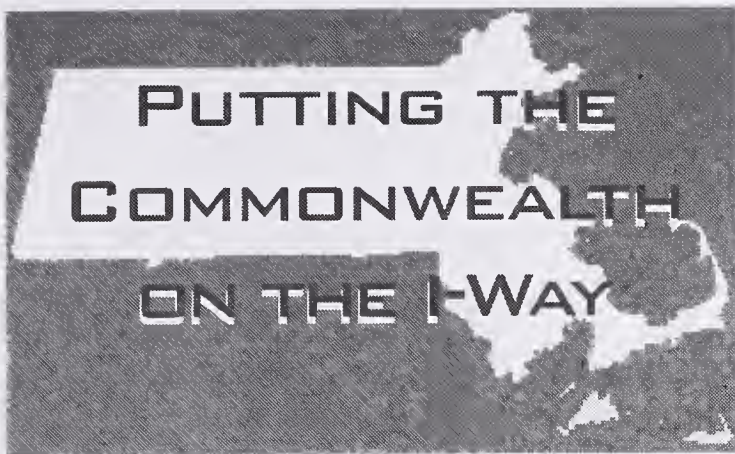
The implementation of statewide videoconferencing moved closer to reality in November with the release of a blanket contract RFP. The scope of this procurement is to establish a blanket contract for videoconferencing products and services which will meet a variety of requirements and facilitate the procurement of this technology.

There are three categories of videoconferencing under evaluation. Category One, high end videoconferencing, will provide equipment to meet the needs of groups of ten or more people within a large room. The effectiveness of this technology was demonstrated at the Babson College IT Summit Meeting in July. Category Two, mid-range videoconferencing, will provide equipment to meet the needs of groups of up to ten people in a medium sized room. Finally, Category Three, small group personal videoconferencing will provide PC based desktop equipment for use by one or two people. All the categories of equipment must be standards based thereby enabling interoperability between all categories covered by the state blanket contract and any vendor's equipment supporting videoconferencing standards.

A full range of services to support the installation, maintenance and training on these products is required of all vendors. A vendor conference was held on November 28 and all RFP responses were submitted in December. A complete evaluation of the RFP responses is expected by the middle of February.

In addition, the kiosk in the State House will provide information on state legislators such as party affiliation, committee assignments and contact numbers. The second phase of the project is envisioned as being more transactional. In the second phase citizens may be able to renew automobile registrations, pay parking tickets or fines, renew their fishing or hunting license, or reserve space at a state campground.

This system has several advantages. OMIS is attempting to have as many organizations as possible on the kiosk in an effort to provide a single point of entry and a seamless user interface across state agencies. Economies of scale will mean that the more functionality that can be provided at a kiosk, the lower the cost of service. A universal kiosk system will provide ease of use to the citizens of Massachusetts because they will not have to learn multiple kiosk systems. The OMIS pilot kiosk systems will provide information and service 24 hours a day, seven days a week.



OMIS is working with the UMass President's Office and pilot agencies to provide access to the Information Superhighway. This project, a MAGNet pilot, will hook up the Commonwealth with the Internet using the Commonwealth Wide Area Network (WAN). Two aspects of this project include providing resources for the Internet community and giving state knowledge workers access to the Internet. The Internet will also be a way for local governments, the private sector and every private citizen to interact with state agencies in a timely and cost-effective way.

The Commonwealth Internet server is being developed as a World Wide Web service using Mosaic, which supports hypertext linking, graphics and sound. Much of the public information disseminated by state agencies on paper can now be posted on the Internet and be readily accessible by state employees and the public. Eventually, agencies will be able to provide data query and transactional services on-line.

The Internet will allow state knowledge workers to access online resources provided by academic and research institutions, businesses, nonprofit organizations, and federal, state and local governments. Agencies will be able to control and administer the WAN-based Internet access themselves, granting privileges to as many or as few agency employees as necessary.

For more information about disseminating information on the World Wide Web, or to find out more about the OMIS Internet Access Pilot Project, please contact the OMIS Librarian, Sarah Bourne at (617) 973-0933, fax (617) 973-0761 or WAN Sarah Bourne@BCS@MIS.

The Internet

The Internet is made up of thousands of computer networks connected by using TCP/IP (Transmission Control Protocol/Internet Protocol) as their internetwork communications standard. TCP/IP allows three essential functions: electronic mail, file transfer, and remote log-in. Electronic mail, or e-mail, allows you to send and receive messages. File transfer, or ftp, allows you to send or receive copies of publicly available computer files. Remote log-in, or telnet, allows you to access resources, such as archives and databases, on other computers.

World Wide Web

Because there is no central control of the Internet, you have to know what you are looking for and where it is. A number of services have evolved to overcome this limitation. One of these is World Wide Web (or WWW), which OMIS is using. WWW is based on hypertext, which allows links to be made between documents and services on your server, as well as on other WWW servers. Once a link has been established, you can move from one document to another to find related information.

computers and laser printers, the data communications equipment (3COM hubs and routers), the server computer systems (various models of Hewlett-Packard HP 9000 series computer systems which conform to Trial Court open systems standards), and associated services including training. NYNEX will provide the frame relay data communications links between locations. Typically, feeder sites will connect to the appropriate local server through a 3COM router using a 56,000 bits per second (bps) circuit and local servers will connect in similar fashion to the central warrant repository system using either a 384,000 bps or 1,000,000 bps circuit. Mahon Communications Company, a cabling company on a state blanket contract for cabling services, will perform cabling required within court houses.

Initial deployment of WMS started at the end of 1994 and deployment state-wide will be completed by the end of the first quarter, 1995.

Warrant - Continued from page 6

capacity to add new functions to WMS, to implement WMS with a manageable deployment of systems, and to do all of this within the budget set for the WMS project.

Each local server connects directly to the central warrant repository and handles the processing involved in making sure changes made to local warrant information data bases pass through promptly to the central repository. Establishing the network of desktop computers and local servers along with the central repository system permits us to provide anyone using WMS with basic electronic mail services connecting them electronically to all other court divisions and departments.

The Future Now, selected from BITA's Open Technology Mid-Range Computing Blanket, will provide the desktop

Commonwealth of Massachusetts
OMIS
One Ashburton Place, Room 1601
Boston, MA 02108

The Information Technology Bulletin is a quarterly newsletter of OMIS's Strategic Planning Bureau. One of SPB's tasks is to act as a clearinghouse for IT information. This publication furthers that goal. Please send correspondence to Managing Editor, Elaine Socha, the Information Technology Bulletin, Room 1601, One Ashburton Place, Boston, MA 02108.

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Next publication: Spring 1995

A Message from the CIO

Dear Friends,

It has been over a year since the last issue of our IT newsletter was published and what a year it has been!

The Commonwealth embarked on *The Warehouse*, its first Statewide Client Server project which will put millions of rows of financial data at the fingertips of the user community; the Welfare Department wrote and issued a Request for Proposals for BEACON, a program that will consolidate the functions of 17 systems into one and will provide greater accountability of welfare recipients; the Massachusetts Access to Government Network (MAGNet) began its roll-out; implementation of the Trial Court's Automated Warrant Management System began; a new emphasis on expanding the use of electronic commerce via MMARS was seen; and the first ever IT summit was held and attended by representatives of all secretariats, the judiciary and three of the constitutional offices.

As we begin 1995, Kiosk technology and the Commonwealth's Internet "home page" are being introduced to bring government closer to the people, and there is a renewed interest in Information Technology projects that present the Commonwealth with one face, projects that save tax dollars and that provide for greater efficiencies. OMIS looks forward to working with you in the year to come and assisting your agency as we all face the new challenges ahead. We hope you enjoy this year's first issue of our Information Technology Bulletin.

Sincerely,

John Thomas Flynn, CIO

COMMONWEALTH OF MASSACHUSETTS INFORMATION TECHNOLOGY

GOVERNMENT DOCUMENTS
COLLECTION

NOV 08 1995

BULLETIN

Office of Management Information Systems
Strategic Planning Bureau

University of Massachusetts
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INFORMATION TECHNOLOGY EXPO '95 AN UNQUALIFIED SUCCESS

The Commonwealth's Information Technology Exposition '95 which was held on June 5 at the State House's Great Hall drew over 1,000 people and rave reviews from the EXPO participants. "The turnout and response to our first IT EXPO were beyond our most optimistic expectations," said the Commonwealth's Chief Information Officer John Thomas Flynn.

Visitors to the IT EXPO '95 were able to see first hand how information technology is being utilized today in Commonwealth departments. A vast array of applications were on display that demonstrated how information technology is making state and local government more efficient and cost effective. As such, the general theme at each of the display booths centered around how in-

formation technology is making government more like private business and consumer oriented.



Attendance was high at the first IT EXPO.

Systems that were on display for the numerous attendees, which included many state legislators and their staff, ranged from new drivers licensing systems to access to the World Wide Web. Upon entering the Great Hall, visitors were welcomed by M.A.G.I.C., the Massachusetts Access to Government Information Center kiosks. The Office of Management Information Systems (OMIS) is coordinating a pilot project to evaluate the potential use of kiosk technology to bring information and services to the citizens of the Commonwealth. (Please see related article on Page 15.) The kiosks utilize touch screen technology to provide information based services such as a state house directory and guide to government services. OMIS will soon be testing transaction driven applications which will eventually provide government agencies the ability to deliver round the clock services to the public.

Pen-based technology was on display, bringing the computing power of desktop PCs to mobile workers. The Registry of Motor Vehicles

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See **IT EXPO**
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CONNECTING THE COMMONWEALTH

NETWORK EXPANSION BEGINS

As PCs become more prevalent in the workplace, OMIS has undertaken the task of "connecting the Commonwealth" in a Massachusetts Access to Government Network (MAGNet). This Wide Area Network (WAN) connects Local Area Networks (LANs) which connect the individual PCs. The WAN offers agencies the services of E-Mail, connection to the Information Warehouse, access to the Internet and in the near future, file transfers and electronic funds transfers.

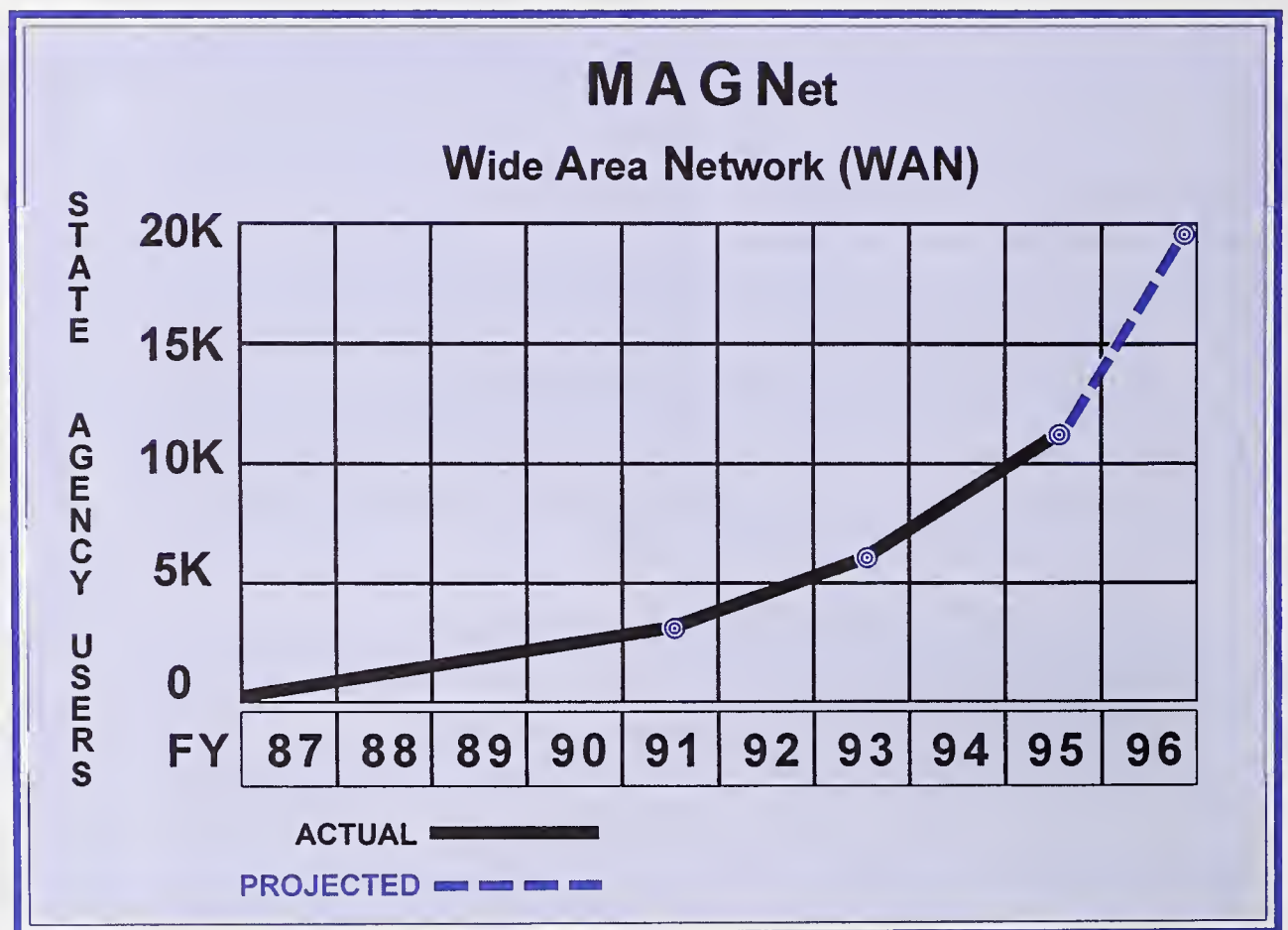
The WAN facilitates business activities between agencies by enabling easier sharing of data and exchange of information between agencies. Agencies will be able to share sophisticated information technology resources that they could not afford individually. As a whole, the state will benefit from MAGNet because it provides a single common user network which is significantly less expensive to build than agency specific models of duplicate wide area networks overlapping into the same communities and state office buildings. Additionally, with the roll out of IT Bond applications from the Comptroller's Office, De-

partment of Personnel Administration and Budget Bureau, connection to the WAN will allow agencies to access new and improved applications such as BARS (Billing and Accounts Receivable System), PCRS (Payroll Cost Reporting System), HR/CMS (Human Resources/Compensation Management System) and ReMMARS (Reengineered Massachusetts Management Accounting and Reporting System).

As indicated in the accompanying chart, in FY '93, there were 6,000 state employees with the ability to

communicate and share information through the WAN. This number will grow to 12,000 in 1995 and to 20,000 by the end of 1996, ensuring every information worker in the Commonwealth access. As of the end of June, 1995, 83 agencies were connected to the WAN, 18 agencies are in the process of being connected and 34 are scheduled to be connected by the second quarter of calendar year 1996.

If you would like additional information about "connecting", please call Carol Mobark at 617-973-0918.



CIO/SIO PROFILE

CIO/SIOs Present Their Visions for the Future

This is a continuation of a series of profiles on the Commonwealth's new Secretariat Information Officers (SIOs).

Dermot Quinn

SIO Executive Office of Public Safety

Dermot Quinn, a sergeant with the Massachusetts State Police, has been assigned to the Executive Office of



Public Safety (EOPS) as that Secretariat's new SIO, effective July, 1995. Sgt. Quinn has been involved with police related information systems for

over ten years, with a specific focus on records management and mobile computing.

Sgt. Quinn said that Secretary Kathleen M. O'Toole recently identified four themes for EOPS to focus on in the coming years. These include re-engineering, reduction in violent crime, partnerships (both public and private, and interagency) and new technology.

Sgt. Quinn will be taking the lead on new technology. He stated that the key to his vision for the department will be on the integration of the entire criminal justice/public safety community. "As it currently exists, the communication links between the various systems are inadequate," said Sgt. Quinn. His goal is to create a seamless information system that would extend from the point of arrest, through incarceration and release.

The various agencies that are involved in all of these areas include the law enforcement, fire services, EMS, courts, corrections, prosecutors, probation and parole communities. "Each is doing an excellent job," said Sgt. Quinn, "but we don't have a smooth transition between different agencies' data systems at this point." He stated that a shared broadband network is a high priority for creating seamless communications. This will give the various criminal justice systems the ability to share decentralized data base information.

Sgt. Quinn said that to accomplish this goal, the different applications that now exist in each agency do not

need to be replaced, but there needs to be more planning at the development stage to insure information can be shared.

"SGT. QUINN SAID THAT HE INTENDS TO WORK CLOSELY WITH OMIS, THE COURTS AND OTHER INVOLVED AGENCIES TO MAKE SURE THAT THE VISION OF INTERAGENCY COMMUNICATION BECOMES A REALITY."

Sgt. Quinn said that he intends to work closely with OMIS, the courts, prosecutors and other secretariat agencies to make sure that the vision of interagency communication becomes a reality.

NEXT ISSUE...

**PROFILE OF
BILL
O'CALLAGHAN**

**CIO/
MASS.
HIGHWAY
DEPT.**

INFORMATION WAREHOUSE OPEN AND EXPANDING

The Commonwealth's Information Warehouse project has been jointly sponsored by the Office of the State Comptroller (OSC), the Budget Bureau, the Department of Personnel Administration and OMIS. Funding for OSC to improve access to financial information was authorized by the Legislature in the IT Bond Bill of 1992. Prior to the Warehouse, information from MMARS (the Massachusetts Management Accounting and Reporting System) was only available through paper reports or via on-line reporting facilities. As fast as these static reports were designed and built, data needs changed and users were left with only some of the data they required.

The primary goals of the Information Warehouse have been to include the proper data, make it easy to use and expandable, and to keep it simple. An important part of the project was to select technology that could use the networked PC architecture planned for all new enterprise-wide applications.

The Warehouse is a central, flexible, integrated data resource containing information gathered from several operational systems which feed data on a daily basis. Currently, the Warehouse contains MMARS financial data from FY '93, '94, '95 and '96. It is planned that data of up to ten years will be kept available. The Warehouse also contains data from the Payroll Cost Reporting System (PCRS) from July, 1994, when that system came on-line. This summer, data from PARIS (Personnel Admin-

istrative Reporting and Information System) and MASSFABS (Massachusetts Fiscal Analysis and Budgeting System) databases will be added as well. The Warehouse is accessible to all state agencies via the state's growing wide area network (WAN).

The Warehouse's success can be attributed to the project's implementation strategy to:

- ◆ Clearly communicate the business need for the Warehouse;
- ◆ Build a coalition of departments managing enterprise-wide systems to provide leadership for the project;
- ◆ Link the project to the state's overall IT strategy;
- ◆ Plan extensive training sessions on the query tools and on Warehouse use;
- ◆ Provide outreach and Helpline support;
- ◆ Build a dedicated implementation team;
- ◆ Choose pilot departments.

In the early stages of the Warehouse implementation, a pool of dedicated pilot departments provided the developers with crucial insights about usability. At that time, the project team also offered executive briefings and on-site user assistance, including help with connectivity. The pilot departments have become creative and sophisticated Warehouse users, with many building applica-

tions to meet their department's unique business needs.

Now that the Warehouse is open statewide, the current implementation emphasis is on user outreach. Most users have been trained on the query tools and on Warehouse data. They are also working to integrate its use into their daily business. The Implementation Team has recently focused on "query assist" visits.

Information Warehouse Winning National Acclaim

The Information Warehouse has provided the Commonwealth with a low cost introduction into the world of enterprise wide client/server computing. With the data warehousing concept still in its early stages, the Warehouse Project has proven itself to be a national leader in this field, ahead of both private and public sector organizations. The Warehouse has not only been presented at national conferences, but has also been awarded the Data Warehousing Institute's top award as the Best Data Warehouse Project for 1995. Cutting edge technology was employed to provide decision makers with the tools to access the data they need to make the best informed decisions possible. The Warehouse project's strategic partnership pooled the highly skilled management, development and implementation expertise needed for success.

These are on-site sessions aimed at walking users through queries that address their fundamental reporting needs. This approach enables users to see immediate results and to gain confidence in successful hands on Warehouse use.

Warehouse growth is a dynamic process. Developers continue to tune and refine the Warehouse database

so that it becomes faster and easier to use. Regularly scheduled user group meetings provide a forum for information exchange.

The InfoShare Forum, a group of "power users", tackles special user assistance and system enhancement projects. Recently, the group published the *Starter Kit & Quick Reference Manual* which provides new users all they need to know to query the Information Warehouse successfully. And growth continues. Statistics show that Warehouse use has increased from 15 pilot departments at the end of December (when it opened statewide) to over 85 departments by the end of June 1995.

To learn more about the Information Warehouse or request a copy of the *Starter Kit & Quick Reference Manual*, please call Tom Smith at (617) 727-5000 ext. 211.

Warehouse Technical Details Are Revealed

The Warehouse is maintained in a Microsoft SQL Server database, version 4.2.1a, which resides on a Compaq 4000R rack-mounted server running Microsoft's Windows NT Server operating system, version 3.5. The 4000R has four 100 MHz processors and 37 gigabytes (GB) of disk storage. Additional storage is provided with an EMC Centriplex unit which adds 45 GB of very high speed capability, for a grand total of 82 GB. All of the storage is RAID (Redundant Arrays of Inexpensive Disk) protected. Thus, if one of the component disk drives fails, the system is able to rebuild itself without loss of data. A second staging or acceptance server, also running Windows NT 3.5 and SQL Server 4.2.1a is housed on an AT&T computer located adjacent to the Warehouse. The Warehouse is maintained by OMIS under the same degree of protection and security — and with the same environmental conditions — as is provided for mainframe computers.

GACIT STANDARDS AVAILABLE

In the fall of 1993, a draft set of information technology standards was published by OMIS' Office of Technology Planning, now the Strategic Planning Bureau. These standards were developed under the auspices of the *Governor's Advisory Committee on Information Technology (GACIT)*. The standards booklet contained documents describing the strategic direction of Massachusetts state government and the building blocks needed to create a uniform, robust computing infrastructure. It also contained: standards for Personal Computer Workstations and Local Area Networks; draft standards for Database Access and Wiring; and draft guidelines for Logical Network Architecture and Network Management Architecture. All of the drafts in the book were later accepted by GACIT.

Last fall, a revised standard for Personal Computer Workstations was drafted by OMIS, reviewed by the vendors on the PC blanket contract, accepted by GACIT and published. Additional standards for the desktop tools of spreadsheets and word processing were also published in recent months. Future additions and revisions to the GACIT standards will be published as needed: for example, the architectural design of MAGNet will result in new networking-related standards.

Copies of the GACIT standards are available from the Strategic Planning Bureau (Elaine Socha@SIB@MIS; phone 617-973-0865, fax 617-973-0761). The full set of standards is also on the Internet at Gopher.Mass.Edu.OMIS Documents (GACIT Standards).

STATEWIDE AUTOMATED CHILD WELFARE INFORMATION SYSTEM TO HELP CHILDREN

On July 31, 1995, the Massachusetts Legislature approved House Bill 5190 which provides \$49 million for the Department of Social Services to build a state-of-the-art computer system. The system, known as the Statewide Automated Child Welfare Information System (SACWIS), will significantly reduce the amount of time that child protective social workers spend on paperwork.

"Right now, a DSS case that involves one child in foster care can accumulate a stack of documents three feet high," said DSS Commissioner Linda K. Carlisle. "Our social workers want to spend more time with people and less time with paper. Thanks to the efforts of the Committee on Science and Technology and our partnership with the federal government, we are one big step closer to making this vision a reality."

Through the Department's participation in the new Federal SACWIS Program, the federal government will reimburse approved information technology expenditures at 75% through September, 1996.

Replacing typewriters, voluminous paper, case records and file cards, SACWIS will provide Department

managers and field staff with direct, on-line access to a wide variety of information which is essential to the more effective delivery of services to children and families. Other areas will also be greatly improved.

There are over 5,000 children in the custody of the Commonwealth who are in need of adoptive homes. SACWIS would allow for the development of a registry of waiting chil-

dren that would include their digitized photos and a written profile of their strengths and needs. This data base would be available to prospective adoptive parents. Currently, social workers have to make dozens of phone calls before finding a child that meets an adoptive family's needs. Similarly, there are 14,000 children in foster and group care. SACWIS would allow maxi-

mum usage of current foster homes by quickly providing a list of families with vacancies. Vacancies are now manually identified by each DSS office using 3x5 index cards. Additionally, on any given day social workers need to fill out dozens of forms (i.e. court reports, counseling and group home referrals). Much of this information is redundant such as personal information and case history. SACWIS would preprint this information, saving thousands of hours in paper work and increasing accuracy. SACWIS will also cut down on the time it takes to conduct background checks on prospective foster and adoptive parents.

DSS, working with the Executive Office of Health and Human Services, the Executive Office for Administration and Finance, and OMIS has made significant progress over the past ten months. In January, DSS established the SACWIS Executive Steering Committee and began work on developing the functional requirements of SACWIS. This work will result in the final Advanced Planning Document, required by the federal government, and the implementation SACWIS Request for Proposals.

"RIGHT NOW, A DSS
CASE THAT INVOLVES ONE
CHILD IN FOSTER CARE
CAN ACCUMULATE A
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THREE FEET HIGH"

INFORMATION TECHNOLOGY EXPO '95



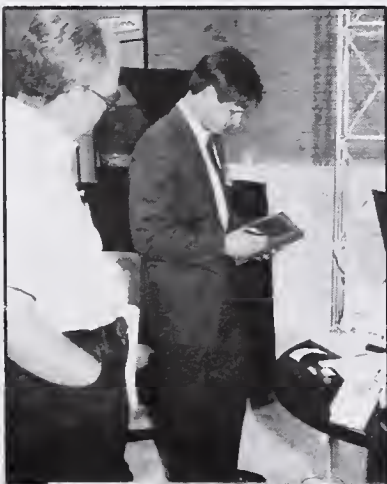
Rep. Marianne Brenton and CIO John Thomas Flynn participate in a Videoconferencing demonstration while Ann von der Lippe looks on.



Rep. Angelo Scaccia renews his license at the RMV's booth.



Rep. Christine Canavan is shown the OMIS network management system by Jim Girardi and Lou Macinanti.



Joe Savastano demonstrates the pen based technology to be used for enforcement of RMV inspection regulations.



Secretary of Administration and Finance Charles Baker tries DOR's telefiling system.

Photos courtesy of Jerry Shereda



Marie Carpenito registers Representatives Edward Connolly and Paul Casey at EXPO '95.



Cheryl Taniguchi explains MassEd Online to Rep. Antonio Cabral while Pat Fennessey tries it on her own.



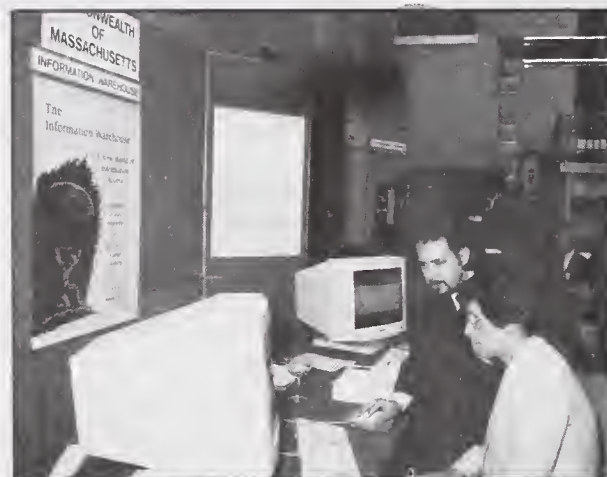
Danielle Norton demonstrates the benefits of the Secretary of the Commonwealth's Motor Voter program.



Mary Lee King of the Governor's office jumps on the World Wide Web with help from UMass' Drew Hammond and OMIS' Sarah Bourne.



Tom Pizzuto tries out a kiosk.



Joe Marinilli helps a visitor enter the Info Warehouse.



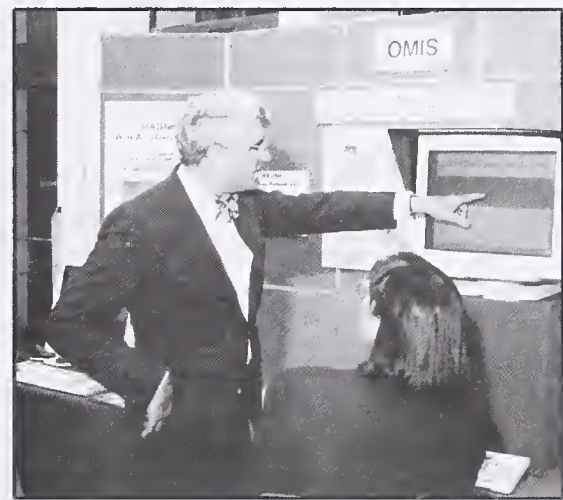
Rep. Mary Rogeness views a map of the open space and recreational facilities in her district, helped by Christian Jacqz, head of MassGIS.



Rep. Mary Jeanette Murray and CIO John Thomas Flynn enjoy the EXPO.



Andrea Lema and Susan Kelley assist Myles Collins at DOR's telefile booth.



A & F Undersecretary Alan Morse and Pat Fennessey on the World Wide Web.



John Flanagan describes the MAGNet City & Town Pilot to Prudence Lange.



DOR's Commissioner Mitchell Adams, Fred Laskey, Richard Breen, Vin Piccinni and Bob Norton enjoy the EXPO.



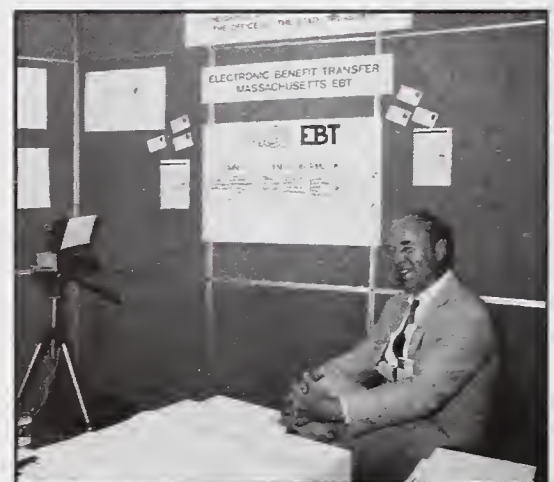
Secretary Charles Baker, IT Director Louis Gutierrez and Registrar Jerold Gnazzo consider the uses of new technology.



Kevin Gorsline shows participants how the Trial Court's Warrant Management system will save time and money.



John Thomas Flynn welcomes New Hampshire IT Director Bob Parks.



Comptroller William Kilmartin at the EBT booth.

VIDEOCONFERENCING BLANKET CONTRACT IS AWARDED

The recent completion of an RFP for videoconferencing products and services has resulted in a blanket contract to facilitate procurement. Entities eligible to purchase from this blanket contract include all agencies of the Commonwealth, local governments, authorities and virtually all governmental or quasi-public entities.

The scope of the procurement includes mid-range videoconferencing equipment for meetings of up to ten people and desktop videoconferencing products suitable for use by one or two people. A full range of support services are also available including: installation, training, room design, promotion of technology consultation and network consultation.

Videoconferencing integrates video, graphics, computers, VCRs and electronic writing surfaces simultaneously. This technology can change our work style and provide a new medium to enjoy face-to-face communications with other locations throughout the Commonwealth and beyond without the inefficient costs

of time and travel. The applications are unlimited and include:

- ◆ Hearings (legislative, judicial & executive)
- ◆ Arraignments
- ◆ Contract negotiations
- ◆ Project review meetings
- ◆ Staff meetings
- ◆ Executive briefings
- ◆ Training
- ◆ Marketing
- ◆ Job interviews
- ◆ Personnel evaluations

The announcement details of the blanket contract are forthcoming. Introductory seminars explaining the technology and applications of videoconferencing will be scheduled starting in mid-July. A Videoconferencing Center is planned at One Ashburton Place for use by agencies.

Information Technology EXPO '95 an Unqualified Success

IT EXPO Continued from page 1

(RMV) will use this technology to provide more effective enforcement of existing inspection regulations. The RMV also introduced its new licensing system that utilizes photo imaging technology to capture customer images and signatures and store them on a central computer. The new credit card style drivers license displays the customer's digitized image and signature. The image and signature can be retrieved to verify a person's identity, thus reducing fraud. The new licensing system also provides customers a greater level of personalized service by offering one-stop shopping. Additional improvements will include renewals by phone, approving your picture before your license is printed and a secure form of identification.

The Office of the Secretary of the Commonwealth demonstrated how Massachusetts is becoming the national leader in the implementation of the National Voter Registration Act, more commonly known as Motor Voter. Massachusetts will have a computer network linking every city and town, and the Registry of Motor Vehicles to a central voter registry located at the Secretary's office. This system will help increase the number of registered voters, protect the integrity of the electoral process and ensure that accurate and up-to-date voter lists are maintained. The system will also provide the first state wide voting list, census capa-

See *IT EXPO* Continued on page 13

IT BOND UPDATE

IT Bond Training Well Received

For the past year, IT Bond Training has been provided to state employees who are directly affected by the IT Bond projects such as MMARS, the Personnel Cost Reporting System, Budget Automation and the Human Resources/Compensation Management System. Training is offered under this program in Basic PC Skills, Windows Skills and Microsoft Word, Excel and Access.

With the development of the statewide systems, the Office of the State Comptroller (OSC), the Department of Personnel Administration (DPA), the Budget Bureau and OMIS jointly created the Information Warehouse. See the Information Warehouse story on page 4. An IT Bond subcommittee selected Microsoft Excel 5.0, Microsoft Access 2.0, Reportsmith 2.0 and Business Objects as end user Query and Reporting tools for the Warehouse. At about the same time under the "Big Buy", many agencies purchased new PCs and software packages.

The IT Bond Executive Committee realized that in order for the Warehouse project to be successful, end users would need training to use the new Query and Reporting tools. Many users would also need training in PC Skills, Windows Skills and Microsoft Word. OSC, DPA and the Budget Bureau agreed to fund the

REVISED IT BOND II AWAITING GOVERNOR'S SIGNATURE

On July 31, 1995 the Massachusetts Senate and the House of Representatives approved An Act Relative to Providing for Capital Outlays for the Acquisition and Upgrading of Certain Major Information Technology Systems, IT Bond II, H.5190. This revised legislation earmarks \$55 million for five of the projects submitted in the original filing of the bill.

By far the largest of the projects is the Department of Social Services' SACWIS, Statewide Automated Child Welfare Information System. This project will be funded with \$16.7 million of State monies and \$32.3 million of Federal monies. See SACWIS story on page 6. The bill also supplies \$3 million for MAGNet, the Massachusetts Access to Government Network, to accomplish, among other things, the deployment of the Internet access to State Agencies and a Pilot for Cities and Towns. The Department of Procurement and General Services will receive \$1 million from this initial bill to develop an image-based decision support system for automating procurements. With \$1.44 million from this bill, the Department of Mental Retardation will begin a project that will track clients under the care of that department. Lastly, the Executive Office of Consumer Affairs will receive \$525 thousand to continue with its efforts on a consolidated licensing and document management system.

OMIS has received very positive feedback concerning the remainder of the projects in the original IT Bond II bill and will be working with departments during the remainder of the summer and into the fall on efforts to move forward on getting the remaining projects funded.

training program and OMIS volunteered to manage it.

Representatives from the training departments of OSC, DPA and OMIS determined the policies and practices for the training program. In June, 1994 OMIS mailed a training catalog to every state organization and within two weeks, OMIS had received over 2,500 requests for training. Employees are not trained until they have an installed PC and the appropriate software. Priority in scheduling classes is given to those who are actually able to access the Warehouse.

IT Bond Training began in July, 1994

and the trainers were selected from the Commonwealth's Master Service Agreement for Computer Training. The training has been very well received. State employees have been so enthusiastic about attending that the most frequently asked question has been, 'Will there be advanced training?'. Over the past year training has occurred at the OMIS training facilities and at various vendor sites in Boston, Burlington, Marlboro and Framingham. To date, over 2,000 people have been trained. The breakdown of people trained is as follows: 344 people in PC Skills, 898 in Windows Skills, 836 in Excel, 534 in Access and 462 in Microsoft Word.

Information Technology EXPO '95

an Unqualified Success

IT EXPO Continued from page 11

bility, jury list capability and rapid reporting of voting results.

Other technologies demonstrated cost savings and increases in efficiency through shared data and a decrease in paper work. Applications such as imaging will allow DOR to efficiently process and store the tons of paper tax returns that are received each year. The Warrant Management System (WMS) being implemented by the Administrative Office of the Trial Court showed how it will improve the timeliness, completeness and accuracy of the warrants that the courts issue now in the bulky and inefficient paper bound processes. The Massachusetts Electronic Benefit Transfer (EBT) program showed the benefits of a pilot program in the Brockton area that conveys welfare benefits to recipients in the form of electronic payments that are accessed via a magnetic stripe card.

In addition to trying out the new kiosks and renewing their drivers licenses, some participants were able to experience first hand the benefits of video conferencing. The video conferencing display demonstrated how this technology can provide face-to-face communications with other locations throughout the state without the inefficient costs of time or travel. (Please see related story on Page 11.) Similar cost and time saving applications were on display throughout the EXPO. For example, the Department of Revenue displayed their telefile program which allows qualified taxpayers to file their taxes by phone. This sys-

tem is quick and easy for the filer and is estimated to save the state \$1.1 million per year.

Sharing data and making it more accessible was another theme that was also evident at the EXPO. Booths related to the Massachusetts Information Warehouse, the Massachusetts Access to Government Network (MAGNet) World Wide Web and City & Town pilot programs, the Massachusetts Corporation for Educational Telecommunications (MCET), and Desktop Access to GIS Data demonstrated these benefits at work. The OMIS Network Management system also displayed how it can handle the over one million transactions per day that arrive at the OMIS mainframe, with results sent back to customer terminals. The MAGNet Network Management System handles all of these transactions and is available 24 hours per day, 7 days per week, with only a few hours of down-time each year.

The Information Warehouse is a central, integrated database of information, gathered from several operational systems. (Please see related article on Page 4.) It provides accurate, up-to-date information which is fed regularly to the Warehouse from the state's accounting, payroll cost reporting and budget systems, with more feeds anticipated in the future. The MAGNet city and town pilot will enable local governments to have easy access to government information and encourages the sharing of information among cities and towns, allowing them to run more efficiently. Similarly, the Massachusetts Access to Government Information Service (MAGIS) provides public information resources produced by state agencies via the World

Wide Web. MAGIS will make it easy and cost effective to find information and conduct business with the Commonwealth. For example, current information resources include information on the legislature, the Governor's FY'96 budget, as well as vendor information and community profiles.

Representatives of MCET and MECN (Massachusetts Education Computer Network) showed examples of Mass Ed Online's (MEOL) interactive programming from its educational satellite network, the Mass LearnPike. MEOL will be the Massachusetts link for on-line access between public schools and the Department of Education, MCET, and the Executive

Office of Education. For those interested in mapped display of data organized geographically (e.g. wetlands, underground storage tanks, population demographics, etc.), the MassGIS demonstrated how users can

store, maintain, display, analyze and plot out maps using hardware and software at the Executive Office of Environmental Affairs or their own sites.

Commenting on the success of this first EXPO, CIO Flynn expressed his gratitude to everyone involved. "From Secretary Baker, folks in the Governor's office, over 125 state legislators, hundreds of our colleagues and nearly 1,000 registered visitors in all, the compliments continue to arrive. Given the time frame, the performance of OMIS, along with the efforts of all the agency booth sponsors and operators was nothing short of fantastic," he said.

**"COST AND TIME
SAVING
APPLICATIONS
WERE ON DISPLAY
THROUGHOUT THE
EXPO."**

MASSACHUSETTS INFORMATION TECHNOLOGY CENTER SET TO OPEN IN CHELSEA

The Massachusetts Information Technology Center (MITC), currently in the final stages of construction in Chelsea, will house computer data centers for five state government organizations. The Department of Revenue, Criminal History Systems Board, Massachusetts Education Computer Network, OMIS and the Office of the State Treasurer will all utilize the building. The MITC will be available for occupancy in September when some of the data centers will begin their relocation. The building will house approximately 1,100 state employees.

This impressive new building is six stories high, comprising 420,000 square feet. Four stories or 335,000 square feet will be used as internal space and the remaining vertical and horizontal space will be dedicated for environmental and infrastructure equipment such as air conditioning, emergency generators and security devices. The site developer is the Lincoln Property Company and the projected budget is approximately \$65 million. The project began in January, 1993 with ground breaking occurring in January, 1994.

The building's security system is state-of-the-art. It is flexible, well integrated and offers multiple levels of protection. The system is comprised of guard patrols, physical barriers, lighting, electronic surveillance and controls, motion detectors, closed circuit television, video tape recorders and intercoms. The building atrium will be the public entrance. A card access system will control all non-public access, including the passenger and freight elevators, the parking lot gate and the loading dock. The card access system will have various levels of access privileges programmed according to individual and agency areas, needs and schedules.

The MITC will be located on Spruce Street in Chelsea, one block from Chelsea's commuter rail stop, which provides regular service to Boston's North Station. MBTA buses will stop in front of the building every ten minutes, connecting with the Orange Line at Wellington Station and with the Blue Line at Maverick Station. The site has 372 employee parking spaces and approximately 435 additional spaces adjacent to the property. The site abuts an on-ramp to Route 1 south via the Tobin Bridge to Boston and Route 93. The Route 1 north ramp is two blocks away and the Revere Beach Parkway is also close by.

The MITC building will contain a 400 person cafeteria and two private meeting or dining areas accommodating 25 and 75 people.



The Data Center is scheduled to open in September, 1995.

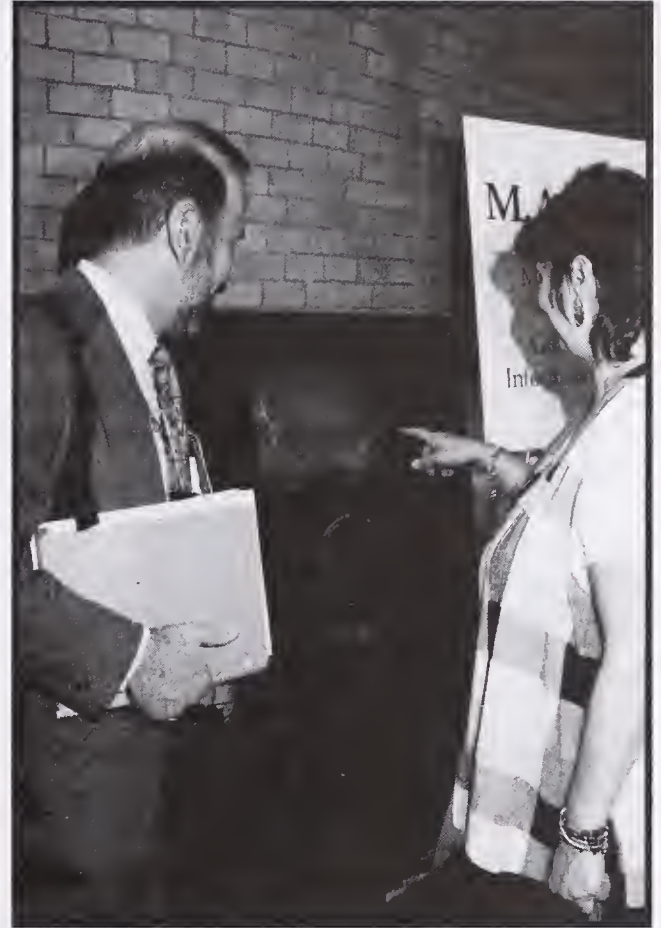
KIOSKS DRAWING INTEREST

The Commonwealth of Massachusetts kiosk project is well under way. Informational kiosks were installed in state office buildings in Boston and Springfield, as well as the State House. The reaction has been positive and enthusiastic. Each kiosk is accessed over 150 times per day. Citizens looking for the location of a specific agency use the electronic directory of the building where the kiosk resides, as well as the electronic map of Massachusetts that points out the street location where the agency is located. Many citizens use the kiosk as a tool to identify services and the organizations providing the services, without ever having to pick up the telephone and utilize the agency's resources.

OMIS is in the daily process of expanding and enhancing the kiosks. Soon the kiosks will have an application on how laws are made. The

application will take the user through the various steps a bill takes to become law. Multi-media applications are being developed to show the structure of government. One such application will display organizational charts of the three branches of government with the descriptions of the various levels and pictures of the individuals who head each organization. Most of the information on the kiosks has been duplicated in Spanish this summer.

**" IN THE FUTURE, A CITIZEN MAY
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WHILE SHOPPING AT THE MALL,
OR RESERVE AND PAY FOR A
WEEKEND CAMP SITE"**



Kiosks such as this one drew a lot of attention at the recent IT EXPO.

OMIS has met with a number of organizations interested in analyzing the potential use of the kiosks for transactional purposes. In the future, a citizen may use the kiosk to pay parking tickets, to enter employment preferences (occupation, salary, location) and receive a listing of available positions while shopping at the mall, or reserve and pay for a weekend camp site. Many citizens may use the kiosk as a tool to apply for various state services. The kiosk could be utilized to screen applicants by asking pertinent questions relative to the service being sought, analyzing the answers and scoring the applicant for eligibility.

The list of possible applications is endless. OMIS will continue to explore potential uses of the kiosks over the next few months in an effort to bring government and its services closer to the citizens of the Commonwealth and its visitors.

OMIS

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The Information Technology Bulletin is a quarterly newsletter of OMIS's Strategic Planning Bureau. One of SPB's tasks is to act as a clearinghouse for IT information. This publication furthers that goal. Please send correspondence to Managing Editor, Elaine Socha, the Information Technology Bulletin, Room 1601, One Ashburton Place, Boston, MA 02108.

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Next publication: Fall 1995

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A Message From the CIO

Dear Friends,

As this publication goes to print, we are pleased to report that on July 31, 1995 the House of Representatives and the Senate passed a revised IT Bond II Bill. H.5190 contains funds for the SACWIS project (see article on page 6), DPGS, Consumer Affairs, DMR and MAGNet (see details on page 12). We will continue to work through the summer with the legislature on the remaining projects that were in the original IT Bond II legislation.

Over 1,000 people turned out to see the many Information Technology solutions in place today at a variety of State organizations at the first ever IT EXPO. The EXPO (see page 1), by all definitions was a huge success and is something that we look forward to doing again in the future.

Yes, it has been a very busy spring, and the summer looks as though it will be equally active. With many of the IT Bond I projects in full swing, Information Technology in the Commonwealth is playing a very active role in helping State organizations achieve their business initiatives.

We at OMIS want to thank all that have contributed their time and effort to the many projects that are ongoing or completed, and we hope that you enjoy this issue of our Information Technology Bulletin.

Sincerely,

John Thomas Flynn

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